

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"4672842".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/25 11:01
S2	23	astronautics.as.	US-PGPUB; USPAT	AND	ON	2007/05/24 15:14
S3	13284	regenerator	US-PGPUB; USPAT	AND	ON	2006/07/25 08:24
S4	25104	cryogenic	US-PGPUB; USPAT	AND	ON	2006/07/25 08:25
S5	94118	porosity	US-PGPUB; USPAT	AND	ON	2006/07/25 08:25
S6	42	S3 S4 S5	US-PGPUB; USPAT	AND	ON	2006/07/25 08:25
S7	5	("3352729"   "3614822").PN. OR ("5286345").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2006/07/25 09:00
S8	16369	erbium	US-PGPUB; USPAT	AND	ON	2006/07/25 10:48
S9	8460	praseodymium	US-PGPUB; USPAT	AND	ON	2006/07/25 10:48
S10	13284	regenerator	US-PGPUB; USPAT	AND	ON	2006/07/25 10:48
S11	278	S8 S9 S10	US-PGPUB; USPAT	AND	ON	2006/07/25 10:49
S12	94118	porosity	US-PGPUB; USPAT	AND	ON	2006/07/25 10:49
S13	24	S11 S12	US-PGPUB; USPAT	AND	ON	2006/07/25 10:50
S14	25104	cryogenic	US-PGPUB; USPAT	AND	ON	2006/07/25 10:50
S15	30	S14 S11	US-PGPUB; USPAT	AND	ON	2006/07/25 10:50
S16	612035	hydrogen	US-PGPUB; USPAT	AND	ON	2006/07/27 14:15
S17	1353088	liquid	US-PGPUB; USPAT	AND	ON	2006/07/27 14:15
S18	662106	tank   vessel	US-PGPUB; USPAT	AND	ON	2006/07/27 14:16
S19	148243	S16 S17 S18	US-PGPUB; USPAT	AND	ON	2006/07/27 14:17

## EAST Search History

S20	58781	doughnut   toroid   torus   toroidal	US-PGPUB; USPAT	AND	ON	2007/05/07 08:15
S22	2105	S20 S19	US-PGPUB; USPAT	AND	ON	2006/07/27 14:18
S23	415	orifice pulse tube refrigerator	US-PGPUB; USPAT	AND	ON	2007/05/17 14:44
S24	14	S23 S22	US-PGPUB; USPAT	AND	ON	2006/07/27 14:21
S25	25134	cryogenic	US-PGPUB; USPAT	AND	ON	2006/07/27 14:22
S26	51259	refrigerator	US-PGPUB; USPAT	AND	ON	2006/07/27 14:22
S27	15	S25 S26 S22	US-PGPUB; USPAT	AND	ON	2006/07/27 14:22
S28	1	"6430938".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/09/15 10:30
S30	1	"6430938".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/09/25 10:21
S31	229	stage refrigerator cryogenic pulse tube	US-PGPUB; USPAT; USOCR	AND	ON	2006/10/02 12:10
S32	2	"3237421".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/10/02 12:10
S33	1	"5107683".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/10/02 13:38
S34	1	"5642623".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/10/02 13:37
S35	2	"6513521".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/07 07:56
S36	2	"6519857".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/07 07:57
S37	2	"5619857".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/07 07:57

## EAST Search History

S38	2	("3869871"   "5438837").PN. OR ("5619857").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/07 08:03
S39	61	("2344765"   "2415972"   "2444612"   "2446612"   "2740563"   "2835263"   "2855759"   "2990695"   "3064448"   "3117426"   "3227208"   "3343536"   "3345641"   "3635216"   "3648289"   "3730178"   "3807396"   "3831594"   "4038833"   "4133376"   "4172454"   "4203458"   "4286439"   "4339927"   "4425764"   "4459822"   "4459823"   "4489569"   "4580411"   "4727255"   "4744222"   "4778497"   "4783853"   "4838270"   "4838912"   "4854128"   "4951660"   "5214925"   "5243821").PN. OR ("5438837").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/07 08:14
S40	5403	(doughnut   toroid   torus   toroidal   elliptical   ellipse   donut) (cryogenic cryogen (pulse near tube) refrigerator (liquid near (hydrogen nitrogen) dewar))	US-PGPUB; USPAT	AND	ON	2007/05/07 08:18
S41	384	(doughnut   toroid   torus   toroidal   elliptical   ellipse   donut) (dewar)	US-PGPUB; USPAT	AND	ON	2007/05/07 08:18
S42	22	(doughnut   toroid   torus   toroidal   elliptical   ellipse   donut) near5 (dewar)	US-PGPUB; USPAT	AND	ON	2007/05/07 08:19
S43	14	("3133422"   "4129014"   "4718239"   "4727723"   "5571231"   "5699839"   "5794450"   "5966944"   "6205812"   "6269658").PN. OR ("6430938").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 13:55
S44	859	"62".clas. vacuum (torr Hg)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 13:56
S45	264	"62".clas. vacuum (torr Hg) insulation	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 13:56
S46	48	"62".clas. vacuum (torr Hg) insulation dewar	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 13:56
S47	24	orifice pulse tube refrigerator dewar	US-PGPUB; USPAT	AND	ON	2007/05/17 14:44

## EAST Search History

S48	51	("3237421"   "3609982"   "3994141"   "4398398"   "4489553"   "4953366"   "5154062"   "5168710"   "5220801"   "5269147"   "5275002"   "5280710"   "5301510"   "5303555"   "5349813"   "5398515"   "5402649"   "5435136"   "5488830"   "5489202"   "5519999"   "5561984"   "5644920"   "5647216"   "5705771"   "5711156"   "5791149"   "5813234"   "5845498"   "5889456"   "5901556"   "5904046"   "5913888"   "5953920"   "5966942"   "5966943"   "5983646"   "5996345"   "6021643"   "6032464"   "6073450"   "6116030"   "6131395"   "6151900"   "6164078"   "6374617"   "6425250"   "6453681"   "6640553").PN. OR ("7043925").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 15:21
S49	3403	"liquid level sensor"	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 15:22
S50	11	"liquid level sensor" (pulse near tube)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:20
S52	577	"liquid level sensor" temperature flexible	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 15:32
S53	48	"liquid level sensor" temperature flexible ("62".clas.)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 15:41
S54	9	"liquid level sensor" temperature superconduct\$3 ("62".clas.)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/17 15:42
S55	4996	hydrogen vehicle refrigerator	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:04
S56	4	62/6 62/47.1 62/45.1 62/51.1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:05
S57	2672	62/6   62/47.1   62/45.1   62/51.1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:06

## EAST Search History

S59	209	(62/6   62/47.1   62/45.1   62/51.1) refrigerator hydrogen	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:07
S60	156	(62/6   62/47.1   62/45.1   62/51.1) refrigerator hydrogen liquid	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:07
S61	47	(62/6   62/47.1   62/45.1   62/51.1) refrigerator hydrogen liquid (pulse near tube)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/17 16:08
S63	6	((("4721194") or ("5295919") or ("5702321"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/17 16:45
S64	29	((("3347056") or ("3699696") or ("4279127") or ("4287720") or ("4796433") or ("4918927") or ("4988014") or ("5005362") or ("5226299") or ("5375423") or ("5586437") or ("6038867") or ("6453680"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/17 16:46
S65	18	("4277949"   "4279127"   "4766741"   "4790147"   "4796433"   "5339650"   "5381666").PN. OR ("5586437").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 09:00
S66	15	("3108447"   "3538714"   "3705498"   "4277949"   "4543794"   "4790147"). PN. OR ("5339650").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 09:29
S67	5	("5966944"   "6347522"   "6354087"). PN. OR ("6609383").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 12:39
S68	533	stage (cryocooler (refrigerator cryogenic) cryorefrigerator cryo refrigerator) hydrogen	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 12:41
S69	387	stage (cryocooler (refrigerator cryogenic) cryorefrigerator cryo refrigerator) hydrogen vacuum	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 12:47
S70	60	stage (cryocooler (refrigerator cryogenic) cryorefrigerator cryo refrigerator) hydrogen vacuum vehicle	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:24

## EAST Search History

S71	51	("3237421"   "3609982"   "3994141"   "4398398"   "4489553"   "4953366"   "5154062"   "5168710"   "5220801"   "5269147"   "5275002"   "5280710"   "5301510"   "5303555"   "5349813"   "5398515"   "5402649"   "5435136"   "5488830"   "5489202"   "5519999"   "5561984"   "5644920"   "5647216"   "5705771"   "5711156"   "5791149"   "5813234"   "5845498"   "5889456"   "5901556"   "5904046"   "5913888"   "5953920"   "5966942"   "5966943"   "5983646"   "5996345"   "6021643"   "6032464"   "6073450"   "6116030"   "6131395"   "6151900"   "6164078"   "6374617"   "6425250"   "6453681"   "6640553").PN. OR ("7043925").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 12:54
S72	27	((("3237421"   "3609982"   "3994141"   "4398398"   "4489553"   "4953366"   "5154062"   "5168710"   "5220801"   "5269147"   "5275002"   "5280710"   "5301510"   "5303555"   "5349813"   "5398515"   "5402649"   "5435136"   "5488830"   "5489202"   "5519999"   "5561984"   "5644920"   "5647216"   "5705771"   "5711156"   "5791149"   "5813234"   "5845498"   "5889456"   "5901556"   "5904046"   "5913888"   "5953920"   "5966942"   "5966943"   "5983646"   "5996345"   "6021643"   "6032464"   "6073450"   "6116030"   "6131395"   "6151900"   "6164078"   "6374617"   "6425250"   "6453681"   "6640553").PN. OR ("7043925").URPN. ) (hydrogen vehicle)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:00
S73	125734	hydrogen vehicle	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:00
S74	100000	hydrogen vehicle liquid	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:00
S75	48	hydrogen vehicle liquid (pulse near tube)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:22
S76	27	("5295355"   "5339640"   "5412952"   "5435136"   "5711156"   "5813234"   "6205812"   "6269658").PN. OR ("6374617").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:05
S77	19561	stage hydrogen vacuum vehicle	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:24

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S78	17651	stage hydrogen vacuum vehicle liquid	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:24
S79	66	stage hydrogen vacuum vehicle liquid "62".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:31
S80	191	hydrogen vacuum vehicle liquid "62".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:31
S81	125	hydrogen vacuum vehicle liquid "62".clas. not (S79)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:31
S82	9	("3304729"   "4364235"   "4625521"   "4805804"   "4877153"   "4988014"   "5226299"   "6688115").PN. OR ("7165408").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/18 13:40
S83	288	"liquid level sensor" "62".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:25
S84	29	"liquid level sensor" "62".clas. cryogen	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:25
S85	528	"liquid level sensor" (cryogen cryogenic (low near temperature))	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:26
S86	114	"liquid level sensor" (cryogen cryogenic)	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:26
S87	24	("3448616"   "4038650"   "4039845"   "4159420"   "4311048"   "4745293").PN. OR ("4880971").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:54
S88	39	("1172541"   "2766623"   "2975637"   "3025464"   "3103002"   "3930411"   "4176553"   "4284343"   "4383444"   "4392378"   "4806847"   "4924702"   "5001596"   "5051921"   "5103368"   "5191316"   "5613398").PN. OR ("6016697").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 12:59
S89	10	73/295 cryogen	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 13:04
S90	2	73/292 cryogen	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 13:04
S91	14	("2456617"   "3496773"   "3566676"   "4592230"   "4655079"   "4915507"   "5167154"   "5209115"   "5211904"   "5393736").PN. OR ("5615573").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 13:04

## EAST Search History

S92	23	("2753713"   "3580055"   "4117538"   "4362403"   "4386525"   "4474054"   "4672842"   "4682298"   "4684922"). PN. OR ("4915507").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 13:07
S93	33	("3653262"   "3852570"   "4362403"   "4509095"   "4687695"   "4710448"   "4756076"   "4890492"   "4915507"   "4961806"   "4965702"   "4969749"   "5049221"   "5052223"   "5097390"   "5191708"   "5192132"   "5286304"   "5411600"   "5414371"   "5444254"   "5482793"   "5491891"   "5550406"   "5792070"   "5801432"   "5806318"   "5898311"   "5900316"   "6226997"). PN. OR ("6431750").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 13:12
S94	2	"4672842".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/24 13:37
S95	23	("2795937"   "2940268"   "3602003"   "3605425"   "3850001"   "3864918"). PN. OR ("4292062").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/05/24 14:20
S96	2267	"47.1" vehicle	US-PGPUB; USPAT	AND	ON	2007/05/24 15:14
S97	37	62/47.1 vehicle	US-PGPUB; USPAT	AND	ON	2007/05/24 15:15
S98	52	(fuel near cell) (pulse near tube)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/24 15:25
S99	47	(fuel near cell) (pulse near tube) hydrogen	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/24 15:20
S10 0	303	(engine) (pulse near tube)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/24 15:25
S10 1	78	(engine) (pulse near tube) vehicle	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2007/05/24 15:25